Rhodora

JOURNAL OF THE

NEW ENGLAND BOTANICAL CLUB.

Conducted and published for the Club, by
BENJAMIN LINCOLN ROBINSON, Editor-in-chief.

FRANK SHIPLEY COLLINS
MERRITT LYNDON FERNALD
HOLLIS WEBSTER
} Associate Editors.

WILLIAM PENN RICH
EDWARD LOTHROP RAND
} Publication Committee.

Vol. 19. June, 1917. No. 222.

CONTENTS

A new Species of Eragrostis. *K. M. Wiegand* 93
Carex novae-angliae in Pennsylvania. *Bayard Long* . . 96
Andropogon in the United States and Canada. *F. T. Hubbard* 100
Additions to the Flora of Connecticut 105
Carex gynocrates in Pennsylvania. *M. L. Fernald* . . 110
Oenothera pumila, var. rectipilis, var. nov. *S. F. Blake* . 110
A diagnostic Character of Nuphar microphyllum. *M. L. Fernald* 111
Taraxacum ceratophorum in New England. *A. S. Pease* . 111

Boston, Mass.
1052 Exchange Building.

Providence, R. I.
Preston and Rounds Co.

RHODORA.—A monthly journal of botany, devoted primarily to the flora of New England. Price, *$1.50* per year (domestic and foreign); single copies 15 cents. Prices of Volumes 1 and 2 (1899 and 1900) on application. All remittances by check or draft, except on Boston or New York, must include ten cents additional for cost of collection. Notes and short scientific papers, relating directly or indirectly to the plants of the northeastern states, will be gladly received and published to the extent that the limited space of the journal permits. Forms will be closed five weeks in advance of publication. Authors (of more than one page of print) will receive 25 copies of the issue in which their contributions appear. Extracted reprints, if ordered in advance, will be furnished at cost.

Address manuscripts and proofs to
B. L. ROBINSON, 3 Clement Circle, Cambridge, Mass

Subscriptions, advertisements, and business communications to
W. P. RICH, 300 Massachusetts Avenue, Boston, Mass.

Single copies may be had from
E. L. RAND, Corresponding Sec'y N. E. Botanical Club,
1052 Exchange Building, Boston, Mass.

Entered at Boston, Mass., Post office as Second Class Mail Matter

---

KEY TO NEW ENGLAND TREES, Wild and Commonly Cultivated, based primarily upon leaf characters, by J. Franklin Collins and Howard W. Preston. Price 40c. net. Preston & Rounds Co., Providence, R. I.

CARD-INDEX OF NEW GENERA, SPECIES AND VARIETIES OF AMERICAN PLANTS, 1885 TO DATE.

For American taxonomists and all students of American plants the most important supplement to the Index Kewensis, this catalogue in several ways exceeds the latter work in detail, since it lists not merely the flowering plants, but pteridophytes and cellular cryptogams, and includes not merely genera and species, but likewise subspecies, varieties and forms. A work of reference invaluable for larger herbaria, leading libraries, academies of sciences, and other centers of botanical activity. Issued quarterly, at $15.00 per 1000 cards.

GRAY HERBARIUM of Harvard University,
Cambridge, Mass., U. S. A.

CHECK LIST OF GRAY'S MANUAL, 7th EDITION, compiled by M. A. Day. Leatherette. Pocket size. Invaluable for collector's memoranda and herbarium records. Published and sold by the Gray Herbarium, Cambridge, Mass. Price postpaid 20 cts. each. Ten copies $1.50.

BOTANICAL BOOKS. The undersigned will sell cheap, or exchange for Books on BIRDS or INSECTS his present supply of Books treating of Plants, including complete sets of "Rhodora" and Contributions from U. S. National Herbarium.

JOHN D. SHERMAN, Jr.,
403 Seneca Avenue, Mt. Vernon, N. Y.

Advertisements of Nurserymen and Dealers in Botanical and other Scientific Publications are inserted in these pages at the following rates per space of 4 in. by 3–4 in. 1 year $4.00, 6 months $2.50.

Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 19. June, 1917. No. 222.

A NEW SPECIES OF ERAGROSTIS OF THE OLD WORLD AND NORTH AMERICA.

K. M. Wiegand.

While collecting in the railroad yards at Ithaca New York during the summer of 1914 the writer noticed that the abundant material of *Eragrostis pilosa* growing between the ties was not all uniform. A casual examination showed that two strains, differing much in appearance, existed side by side. Each strain was abundant, but the coarser strain predominated in the proportion, roughly, of two to one. The material collected at this time was laid aside and did not come to notice again until recently. A more careful examination now shows that the two strains differ materially in several respects.

After the resurrection of the material, it was taken, along with other problems, to the Gray Herbarium for study. There it was soon apparent that the coarser of the two strains was the common and widely distributed *E. pilosa* of Europe and America. After a long search, four specimens were found which matched the finer strain. Three of these were from Europe and one only from America. All three of the European specimens were indicated as weeds in gardens or between paving stones, one coming from Warsaw, one from Karlsruhe and the third from Berlin. The American specimen was collected by M. L. Fernald along a roadside at Alstead, New Hampshire. Later, the Herbarium of the New York Botanical Garden was visited, and a search there made for the plant. Three more specimens were found; one from Japan, one from Mickleton, New Jersey, and the other from Lancaster, Pennsylvania. These few specimens, it will be seen, indicate a rather remarkable distribution, as the plant must be rare and local everywhere. Also, it has never as yet been found in the indigenous state, but always as a weed; and its home country is not yet known. At present it is a veritable "man without a country," and we shall look with interest for the discovery of its native haunts.

All of the specimens mentioned were extremely uniform, and matched our Ithaca specimen perfectly. The Karlsruhe specimen bore the name *E. pilosa* var. *condensata* Hackel, and was a portion of the material on which this variety was based, it being a part of the original material distributed by Kneucker. Our plant is therefore the *E. pilosa* var. *condensata* of Hackel. However, the study of all of the material mentioned has brought to light several other good distinguishing characters besides those mentioned by Hackel, so that in the judgment of the writer the plant is really a very good species, and should be recognized as such. The name *condensata* is in use, however, for another species, and therefore cannot be used. This being so, the name *peregrina* may very appropriately be substituted.

This plant is not to be included in the question of the status of *E. Purshii*. *E. pilosa* and *E. Purshii* are extremely close in relationship, and there can be a legitimate doubt as to whether both are good species, but our plant differs in several important respects from each.

Of our plant Hackel says, translated: — "The present plant is to be distinguished from the typical form by: solitary branches of the panicle without hairs in their axils (which however are sometimes lacking in the typical form), the branches of the panicle are spikelet-bearing to the base so that the panicle appears much denser. The spikelets are short-pedicelled (the next to the last on each branch possesses a pedicel about 1 mm. long). In the typical form the branches of the panicle are in 2's or 4's and branched from the one-third or one-half point upward, and loosely provided with spikelets whose pedicels are at least 2 mm. long. The plant is closely related to the *E. Purshii* (*caroliniana*) but is distinguished from it by the absence of conspicuous lateral nerves on the flowering glume."

The writer finds that the differences noted by Hackel hold fairly well for all the other specimens examined. The branches of the panicle however are sometimes solitary in smaller forms of *E. pilosa* (including *E. Purshii*). Also, in smaller plants of the latter species the spikelets extend sometimes far toward the base of the branches. The spikelets are in the main shorter-pedicelled than in *E. pilosa*.

The lateral nerves of the flowering glumes are always inconspicuous, but there are occasional specimens of *E. pilosa* in which they are equally indistinct. As an additional character may be mentioned the smooth empty glumes, which in *E. pilosa* are usually, but not always, scabrous on the keel. The florets are also somewhat smaller. The two most constant differences, however, are the denser panicle, which resembles that of *Agrostis alba* or *Panicum agrostoides,* and especially the absence of the long pilose hairs on the auricles of the sheath. The plant is much more constant in its characters than is *E. pilosa.* It can be readily recognized by its general appearance.

The following is a more detailed description than is given by Hackel:

Eragrostis **peregrina**, sp. nov. (*E. pilosa* var. *condensata* Hackel, Allgem. Bot. Zeitschr. vii. 13 (1901), non *E. condensata* Steud.) Annua; culmis pluribus ascendentibus vel erectis glabris basi aliquid geniculatis; foliis 2–6 cm. longis raro longioribus 1–2.5 mm. latis glabris, ligula e pilis tenuioribus 0.5 mm. longis vel brevioribus formata, vaginis aliter summo nudis; panicula subdensa 5–12 cm. longa 2.5–4 cm. diametro oblonga, ramis plerumque solitariis, longioribus 1–4 plerumque 2–3 cm. longis angulo 45° patentibus densius spiculiferis fere ad basim; axillis glabris; spiculis 6–10-floris 3–5 mm. longis 1–2 mm. latis in pedicellis brevissimis 0.5–2.5 mm. longis, glumis vacuis parvis lanceolato-ovatis acutissimis hyalinis inaequalibus, superiore glumis florentibus duplo breviore, carina non scabra; gluma florente (lemmate) aliquanto divaricata ovata acuta 1.4 mm. longa tenui et membranacea infra viride supra castaneo-rubra ad apicem palidiore, carina apicem versus scabra, nervis lateralibus indistinctis, caryopsibus 3–6 mm. longis ovali-oblongis sucino-fuscis.

Annual; culms several, somewhat geniculate at the base, ascending or erect, glabrous: leaves 2.6 cm. long, rarely longer, 1–2.5 mm. wide, glabrous; ligule of fine hairs, 0.5 mm. long or less; sheaths otherwise naked at the summit; panicle rather dense, 5–12 cm. long, 2.5–4 cm. broad, oblong; branches mostly solitary, the longer 1–4 (mostly 2–3) cm. long, spreading at an angle of 45°, rather densely spikelet-bearing to near the base; the axils glabrous: spikelets 6–10-flowered 3–5 mm. long, 1–2 mm. wide, on very short pedicels 0.5–2.5 mm. long; empty glumes small, lance-ovate, very acute, hyaline, unequal, the upper about one half the length of the flowering glume; keel not scabrous; flowering glume (lemma) somewhat spreading, ovate, acute, 1.4 mm. long, thin and membraneous, greenish below, chestnut-red above, the tip paler; keel scabrous toward the apex; lateral nerves indistinct; caryopsis 0.5–0.6 mm. long, oval-oblong, amber-brown.

Specimens examined: Germany: "Auf Gartenland im Grossherzoglichen Hofgarten, Karlsruhe, seit langen Jahren äusserst lästiges und schwer zu beseitigendes Umkraut: sandiger humus.

Begleitpflanzen Euphorbia polygonifolia Jacq. Ca. 117 m. ü. d. M: 17 July, 1900," *A. Kneucker:* Gramineae exsiccatae, no. 115. Type collection of *E. pilosa* var. *condensata* Hackel; Botanic Garden, Berlin, Aug. 2, 1877, *P. Magnus.* POLAND: Between paving stones, escaped, Warsaw, Sept., 1885, *Przybulski.* JAPAN: Plants of the Liu Kiu Islands, collected for L. Boehmer & Co. in 1904, no. 174. NEW HAMPSHIRE: Cheshire County; dry roadside, Alstead, Aug. 2, 1900, *M. L. Fernald,* no. 360. NEW JERSEY: Gloucester County; Mickleton, Aug., 1887, *B. Heritage.* PENNSYLVANIA: Lancaster County; Vicinity of Lancaster, Sept., 1889, *J. K. Small.* NEW YORK: Tompkins County; in gravel and cinders between railroad ties, Ithaca, Aug. 12, 1914, *K. M. Wiegand,* no. 1669.

CORNELL UNIVERSITY, Ithaca, New York.

RANGE OF CAREX NOVAE-ANGLIAE EXTENDED INTO PENNSYLVANIA.

BAYARD LONG.

SINCE the appearance of Prof. T. C. Porter's estimable *Flora of Pennsylvania* in 1903, discoveries of indigenous species heretofore unknown in the region have not been so overwhelmingly numerous that they are without a certain interest. Some index of the almost exhaustive exploration which Prof. Porter and his associates succeeded in achieving over an area of really very considerable size and diversity is shown by the fact that only about one in ten of the additions in recent years is an indigenous species which was well known in Porter's day. For it will be remembered that in the numerical count of species there are two main sources of so-called "additions" to the flora of any well known area: new introductions and species due to work of more recent revision and segregation. In these two categories are unquestionably included the great majority of species (now known to occur in the state) which are not recognized in Porter's *Flora.*

As a further suggestion of the completeness of Porter's Pennsylvania collection may be noted the fact that it contains an excellent representation of species recently described or ones only lately recognized as elements of our flora. Thus, for example, there is ample material from the state of *Echinochloa muricata, Muhlenbergia foliosa,* and *Carex incomperta.* There is a representation of *Carex laevivaginata, C. projecta*, and *Dioscorea glauca.* Even some very rare Pennsylvania plants had been obtained in several cases. Of that interesting sedge known as *Rynchospora Smallii* Britton, thus far found at only four localities in the state, the Pennsylvania assignment with the original description is based upon material collected by Porter in Chester County — a fact not very commonly known.

It may not even be asserted with confidence that all of the additional native species, recognized in Porter's time but not recorded by him from Pennsylvania, were entirely unknown to him from this area. For, although he was one of the most acute and discriminating botanists of his day, like any other student he was not completely clear on every critical group. It is found, as a case in point, that although *Carex Bicknellii,* as a name, was well known to him and that he had excellent Pennsylvania material of it in his herbarium, it was confused with other allies of *C. straminea* in his *Flora.* But it is fairly certain that among real additions to the flora of the state, quite unknown to Porter, may be numbered such plants as *Sporobolus uniflorus* [1] and *Rynchospora fusca* [1] (discovered by Dr. Witmer Stone at Lake Bella Sylva in Sullivan County, August 29, 1903), *Eleocharis Robbinsii* [1] (found by the late Charles S. Williamson, also at Lake Bella Sylva, August 18, 1908), *Allium sibiricum* [2] (apparently first detected by Mr. Percy Wilson on the Palisades of the Delaware River, in Pike County, opposite Sparrowbush, New York, May 30, 1902), *Fimbristylis puberula* [3] (collected by the late Joel J. Carter, in his energetic explorations in Lancaster County, near Eldora Station, July 27, 1910). To this group may be added *Carex novae-angliae* upon the basis of several well authenticated stations in different portions of Pennsylvania.

For a Philadelphian, some of my most pleasant recollections, associated with a delightful week in June, 1907, on the Pocono Plateau, center about the finding of Labrador Tea, Twin-flower, Creeping Snowberry, Small Cranberry, and the like, but they might well be coupled with a much more important discovery — had it been recognized at the time. With Porter's *Flora of Pennsylvania* as a guide I had found and distinguished *Carex oligosperma* at Long Pond, had become acquainted with *Carex filiformis* and *C. utriculata*, as well as a number of other northern species of interest in the state, but even with a youthful enthusiasm I had been unable to fathom with more than a modicum of success the intricacies of the more critical groups in *Carex*. In the press of other interests the unnamed Carices from this Pocono trip lay neglected for a long time — during which interval some acquaintance was made with the *Montanae*, among other groups. And when these plants came to be examined again it was with considerable interest that it was discovered that *Carex novae-angliae* had been collected at Pocono Lake.

---

[1] These species are incidentally recorded, without comment, in the introductory matter of Stone's *The Plants of Southern New Jersey* (Ann. Rep. N. J. State Mus., 1910, 110).

[2] Taylor, Fl. Vic. N. Y. 233 (1915).

[3] Small and Carter, Fl. Lancaster Co. 45 (1913).

With the thought of other possible material from Pennsylvania, the Academy collection was thoroughly overhauled. Careful inspection, in a large herbarium, of the material of a critical genus like *Carex* is rarely unrequited by discoveries of interest, but seldom is a specifically desired specimen found. A search among the copious material, unnamed or awaiting examination before being distributed, was rewarded by the finding of a sheet of *Carex novae-angliae* collected by Mr. Stewardson Brown at Ganoga Lake in June, 1898. Mr. Brown, when his attention was directed to this specimen, distinctly recalled the circumstances of its collection, and was able to furnish some data of interest. The station was remembered as in beech woods which had been burned over, lying south of the Ganoga Hotel and toward Lake Leigh. In moist depressions in this woods the sedge was found growing very abundantly, occurring in large patches of lush growth — practically the dominant species of the woodland floor.

In correspondence concerning the southernmost authentic stations previously known, Prof. Fernald's interest was incited and he wrote of having the impression that Judge Churchill had obtained the species in northwestern Pennsylvania. Material was not to be found in the Gray Herbarium and Judge Churchill wrote that he did not have it in his own collection. To Prof. Fernald's continued interest is due the final discovery of the material in the large herbarium of Mr. Walter Deane of Cambridge, Massachusetts. The specimen, critically examined by Prof. Fernald, was collected by J. R. Churchill at Corry, Pennsylvania, June 1, 1893.

Among material recently collected on the Pocono Plateau by Mr. Harold W. Pretz and contributed to the Academy Herbarium an additional station for *Carex novae-angliae* was brought to my attention.

This is at Long Pond in Monroe County. Excellent specimens were obtained July 2, 1916. Mr. Pretz's station lies at the foot of Long Pond near the outlet stream. He writes, in further detail: "The sedge was found on a slight rise in the strip of low ground lying between the stream and the more elevated and drier plateau. Marshy ground lay within a few feet. The spot was comparatively free from underbrush, grassy, and lightly shaded. The plant grew in soft mats under a group of Pitch Pines, often quite near to the trunks."

These four stations all lie in the northern half of Pennsylvania over an approximately east and west line of about two hundred and thirty miles. Those at Pocono Lake and Long Pond are on the Pocono Plateau, within a comparatively short distance of each other, and in the same geographic area. That at Ganoga Lake lies some fifty miles west, in general, of the Pocono stations, well up on the main ridge of the Alleghanies. These localities are in the northeastern part of the state but that at Corry is in the elevated portion of northwestern Pennsylvania. Although in three somewhat different areas, the stations all lie at altitudes of between one thousand and two thousand feet, where the flora shows a rather distinctive Canadian element.

The nearest, previously known and formerly southernmost, stations for *Carex novae-angliae*, I learn from Prof. Fernald and Mr. Mackenzie, are in Norfolk, Connecticut[1] (the northwestern corner of the state, in Litchfield County) and at East Windham, New York[2] (in the Catskills). The important record by Hoysradt of the plant on Little Stissing Mountain, near Pine Plains, Dutchess County, New York[3] is in all probability quite correct. In his Catalogue he states that his Carices were critically examined by William Boott, and furthermore this locality is not far distant from either the Norfolk or the East Windham stations. I am indebted to Prof. Fernald for verifying the Norfolk plant and to Mr. Mackenzie, the East Windham specimen.

For more concise reference these new records for *Carex novae-angliae* may be briefly summarized.

PENNSYLVANIA: Pocono Lake, Monroe County, June 18–21, 1907, *B. Long;* Long Pond, Monroe County, July 2, 1916, *H. W. Pretz* 8242;

---

[1] Bissell, RHODORA, xiii. 30 (1911).

[2] Mackenzie in Taylor, Fl. Vic. N. Y. 195 (1915).

[3] Hoysradt, Cat. Pl. Pine Plains, N. Y., page xxvii (1875–79). Bull. Torr. Bot. Cl. vi. Supplement.

Ganoga Lake [Sullivan County], June, 1898, *S. Brown;* Corry [Erie County], June 1, 1893, *J. R. Churchill.*

Specimens of these collections, except the last cited, are in the Herbarium of the Academy of Natural Sciences and have received critical examination by Mr. Mackenzie.

Academy of Natural Sciences of Philadelphia.

ANDROPOGON SCOPARIUS IN THE UNITED STATES AND CANADA.

F. Tracy Hubbard.

The marked variability of *Andropogon scoparius* is known to most collectors and different authors have described varieties and forms of the species, some of which have been raised to specific rank. With a view to classifying these variants a careful study of the species was undertaken at the suggestion of Prof. M. L. Fernald who has kindly given me his advice on numerous points. I am also indebted to Mr. Bayard Long for the loan of the material in the herbarium of the Academy of Natural Sciences of Philadelphia and to Miss K. D. Kimball of the New York Botanical Garden for notes on the type of *Andropogon littoralis.*

Many of the characters which have been used for separation of varieties or species do not prove constant enough, to have value in classification. This is the case with such features as the color of plant, length of sessile spikelet, villousness of sheaths and leaves, compression of sheaths and length of hairs at the apex of the internodes of the rhachis. Hackel in DC. Monogr. Phan. **6**: 384 (1889) describes six forms or subvarieties (along some of these lines) which are scarcely determinable except in their extreme development. The species, however, seems to divide into three reasonably marked varieties: the common widespread form with glabrous sheaths and open, elongated inflorescence which intergrades with the other two forms; the second or typical form also with an open, elongated inflorescence, described by Michaux Fl. Bor. Am. **1**: 57 (1803) "A vaginis villosis," and thus at once recognizable as the villous-sheathed form; the third form with glabrous sheaths, but a many-branched, flabellate inflorescence. The last two forms also have fairly well marked geographic ranges.

Andropogon scoparius Michx. [sensu ampliore]. *Schizachyrium scoparius* (Michx.) Nash in Small Fl. S. E. U. S. 59 (1903). Extremely variable, commonly strongly cespitose and with fibrous roots, but occasionally in sandy localities rather loosely tufted with an apparent vertical rootstock up to 5 cm. long. Color of plant green, purplish or strongly glaucous. Culms terete to rather strongly compressed, of very variable height and usually with only a few widely separated nodes, but in the sand form with the basal nodes close together and the extreme base of the culm rather indurated. Sheaths convex to strongly flattened and almost plicate, glabrous to strongly villous, the basal ones all arising from very close to the base of the culm or in the sand form from a series of closely situated nodes and apt to be strongly equitant and rather fan-spreading. Leaves variable in length and breadth, flat to frequently plicate, the mid-rib usually prominent below, glabrous on both surfaces to rather strongly villous on one or both surfaces. Inflorescence in the commoner form open and elongated with relatively few branches varying to rather dense and flabellate with many branches in var. *polyclados*. Bract-like sheaths subtending the racemes inconspicuous to rather large and spathe-like. Rachis of the raceme nearly straight to very flexuous, more or less hairy, the hairs at the top of the internodes varying from 1 to 5 mm. long. Pedicels of the sterile spikelets variable in length, erect to more or less recurved and varying in the density and length of the marginal ciliation. Sessile spikelets 4.5–11.5 mm. long with a geniculate awn 4–15 mm. long; pedicellate spikelets composed of one or less often of two empty glumes, 1–7 mm. long, awnless or terminated by an awn which may reach a length of 4 mm.

Var. villosissimus Kearney ex Scribn. & Ball in Bull. U. S. Div. Agrost. **24**: 41 (1900). *A. scoparius* Michx. [sensu stricto] Fl. Bor. Am. **1**: 57 (1803). *Schizachyrium villosissimum* (Kearney) Nash in Small Fl. S. E. U. S. 59 (1903). Sheaths more or less densely villous. Blades sometimes more or less villous on the lower surface, the upper surface usually villous at least near the sheath. Inflorescence open and elongated. Massachusetts: Sesachacha River, Nantucket Island, July 26, 1911, *E. F. Williams* (N. E.)[1]; Sankaty Head, Nantucket Island, July 29, 1911, *E. F. Williams* (N. E.); Nantucket, August 18, 1878, *E. & C. E. Faxon* (Gr., N. E.). New Jersey: sandy barrens near Ho~~m~~erstown (New Egypt), Ocean Co., September rn/ 22, 1906, *J. H. Grove*, no. 403 (Ph.); common in old barren fields etc., Brindletown, Ocean Co., August 22, 1905, *J. H. Grove* (Ph.); margin of dry sandy woods south of station on Salem Branch of W. ~~G~~. & S. R. R., Tomlin, Gloucester Co., September 9, 1911, *Bayard Long*, no. 6797 (Ph.); Swedesboro, August 5, 1893, *Charles D. Lippincott* (Ph.). Pennsylvania: Wilt's Mill Meadows along Trout creek E. of 12th Ward, ~~vicinity of~~ Allentown, Lehigh Co., *Harold W. Pretz*, no. 6099 (Ph.); meadows along N. side P. R. R. 5/8 mile S. W. of Emaus P. O., vicinity of the South Mountains, Lehigh Co., August 2, 1913, *Harold W. Pretz*, no. 5994 (Ph.), August 2, 1913, *Harold W. Pretz*, no. 5995 (Ph.); woods beside road about 2 1/8 miles S. W. of Locust Valley P. O., Lehigh Co., October 3, 1915, *Harold W. Pretz*, no. 7977 (Ph.); vicinity of marshy meadows along Indian creek 3/4 mile N. by N. E. of Sigmund, Lehigh Co., August 23, 1914, *Harold W. Pretz*, no. 7183; on serpentine, Fern Hill, Chester Co., September 7, 1908, *E. B. Bartram* (Ph.). Delaware: dry soil Talleyville, August 31, 1897, *A. Commons*, no. 107 (Ph.). District of Columbia: sterile knoll of clay and sand, Deanwood, September 9, 1905, *A. S. Hitchcock*, Amer. Gr. Nat. Herb. no. 268 (Gr.). North Carolina: moist, sandy soil, Clarkton, Bladen Co., October 7, 1897, *Biltmore Herbarium*, no. 20^b (Gr.); a very glaucous form found growing along the French Broad River near Biltmore, Buncombe Co., September 13, 1898, *Biltmore Herbarium*, no. 20^e (Gr.). South Carolina: damp Pine land, Santee Canal, October, *H. W. Ravenel* (Gr.). Georgia: rather dry pine-barrens near Brookfield, Berrien Co., September 27, 1902, *Roland M. Harper*, no. 1684 (Gr.). Florida: Tampa, 1898, *Robert Combs*, no. 1348 (Gr.); Braidentown, September 19, 1900, *S. M. Tracy*, no. 7092 (Gr.); no locality, *Chapman* (Gr.). Alabama: Gateswood, October 30, 1903, *S. M. Tracy*, no. 8393 (Gr.). Mississippi: Biloxi, Harrison Co., September 15, 1893, *S. M. Tracy*, no. 1397 (Gr.). Louisiana: Jacksonville, *J. C.* (Gr.). Missouri: near Sulphur Springs, August 14, 1910, *Earl E. Sherff*, no. 1052 (Gr.). Illinois: dry gravel hillside near Wady Petra, Stark Co., September 17, 1897, *Virginius H. Chase*, no. 126 (Ph.); Black-jack oak association, Bath, August 17, 1903, *H. A. Gleason* (Gr.). Indiana: sand, Dune Park, September 6, 1897, *Agnes Chase*, no. 622 (Ph.). Iowa: Carnarvon, August 29, 1896, *L. H. Pammel*, no. 294 (Gr.); Winterset, September 1895, *G. W. Carver*, no. 266 (Gr.).

---

[1] In listing herbaria the following abbreviations are used: Gr., Gray; N. E., New England Botanical Club; N. Y., New York Botanical Garden; C., Columbia College, deposited at the New York Botanical Garden; Ph., Academy of Natural Sciences, Philadelphia, including the Philadelphia Botanical Club collection.

Variety *villosissimus* is essentially a plant of costal plain distribution along the Atlantic coast running up into Lehigh County, Pennsylvania, the mountains of North Carolina and Georgia in isolated localities and also occurring in the Mississippi basin as far north as Illinois with two rather remote stations in Iowa. As a whole the more pronounced specimens are confined to the Atlantic seaboard whereas those from the Mississippi basin usually show only slight villosity. The following specimens listed above approach var. *frequens* very closely only a few hairs being noted on one or two sheaths. New Jersey: Brindletown, *J. H. Grove*. Pennsylvania: N. E. of Sigmund, *H. W. Pretz*, no. 7183. Delaware: Talleyville, *A. Commons*, no. 107. FLORIDA: Tampa, *R. Combs*, no. 1348. INDIANA: Dune Park, *Agnes Chase*, no. 622. ILLINOIS: Bath, *H. A. Gleason.* IOWA: Carnarvon, *L. H. Pammel*, no. 294; Winterset, *G. W. Carver*, no. 266. The inflorescence of two specimens shows a marked tendency toward var. *polyclados.* FLORIDA: Braidentown, *S. M. Tracy*, no. 7092. MISSISSIPPI: Biloxi, *S. M. Tracy*, no. 1397 [only the upper portion of the plant, which also has sparsely villous sheaths]. There is also one specimen in the herbarium of the New England Botanical Club, MASSACHUSETTS: gravelly pasture, Concord, September, *Edward S. Hoar*, which belongs in this variety, but the certainty of its being from Concord is open to some question and consequently it was omitted from the general citation of specimens.

Var. **frequens** Hubb., var. nov.[1] Plerumque dense caespitosa; vaginis foliisque glabris (laminis supra basin versus interdum paullo villosis); inflorescentia elongata simplice laxa.

Usually densely cespitose with glabrous sheaths and leaves (sometimes the base of the blade somewhat villous on the upper surface) and with an elongated, simple, open inflorescence. RHODE ISLAND: dry open fields and hillsides near Dickens Point, Block Island, Newport Co., September 15, 1913, *M. L. Fernald, Bayard Long* and *G. S. Torrey*, no. 8476 (TYPE in Gray Herb., N. E., Ph.). General distribution New Brunswick to Saskatchewan and Montana south to Georgia, Texas and eastern Arizona. The species is also reported from Washington [Nash in N. Am. Fl. **17**: 106 (1912)], but I have seen no specimens and can find no other reference to it in that state, nor have I seen specimens of this variety from Florida.

Variety *frequens* is the common form of the species showing a wide range of variation, but no constant grouping of characters which would justify subdivision. Certain specimens growing in sandy locations or in railroad ballast show more nodes at the base of the culm, more compression of the basal sheaths and a tendency to produce vertical rootstocks, but these characters are variable and not always combined. The following specimens show a strong tendency toward var. *polyclados.* PENNSYLVANIA: serpentine barrens, Mineral Hill, Delaware Co., September 6, 1908, *Francis W. Pennell.* no. 597 (Ph.). MISSOURI: fields, Hannibal, October 26, 1911, *John Davis*, no. 1425 (Gr.).

Var. POLYCLADOS Scribn. & Ball in Bull. U. S. Div. Agrost. **24**: 40 (1900). *A. littoralis* Nash in Britton Man. 69 (1901). *A. scoparius* var. *littoralis* (Nash) Hitchc. in RHODORA **8**: 205 (1906). *Schizachyrium littorale* (Nash) Bicknell in Bull. Torr. Bot. Cl. **35**: 182 (1908). Sometimes densely tufted, with more or less strongly flattened, glabrous sheaths. Leaves glabrous on the lower surface, glabrous or more or less villous above especially toward the base. Inflorescence many branched above and more or less densely flabellate.

---

[1] *A. purpurascens* Muhl. ex Willd. Sp. Pl. **4**: 913 (1806) and *A. flexilis* Bosc ex Poir. in Lam. Encycl. Suppl. **1**: 583 (1810) probably belong here.

Massachusetts: gravelly soil, Cambridge, October 16, 1908, *A. S. Pease*, no. 11834 (N. E.); Chilmark, Dukes Co., Marthas Vineyard, August 19, 1895, *Sydney Harris* (N. E.), pasture land, farm, August 19, 1895, *Sydney Harris* (N. E.); sandy soil, Tea Lane, Chilmark, Dukes Co., Marthas Vineyard, September 21, 1916, *F. C. Seymour* (Gr.). New York: Long Beach, Nassau Co., Long Island, September 2, 1906, *R. M. Harper* (N. Y.); Rockaway Point, Long Island, October 22, 1908, *E. P. Bicknell* (N. Y.);[1] along seashore at Staten Island, October, 1894, *Geo. V. Nash* (type of *A. littoralis*, N. Y.). New Jersey: Seaside Park, Ocean Co., August 30, 1908, *E. B. Bartram* (Ph.), September 27, 1908, *~~R~~. B. Bartram* (Ph.); Clementon, September 3, 1898, *Alexander MacElwee, ~~Jr~~.* (Ph.); marshes at Atlantic City, 1884, *Vasey* (Gr.); Ocean City, September 4, 1912, *C. D. Fretz* (Ph.); Wildwood, September 20, 1902, *Albrecht Jahn;* dry sand dunes, Five-mile Beach, Cape May Co., October 3, 1899, *Alexander MacElwee* (Ph.), on sand dunes, September 25, 1900, *Alexander MacElwee*, no. 2024 (Ph.) [exceptional, approaching var. *villosissimus* as several of the sheaths are villous]; East Cape May, Cape May Co., September 20, 1911, *O. H. Brown* (Ph.); Cape May, October 9, 1881, *no collector given* (Ph.); Cape May Point, Cape May Co., September 16, 1906, *S. S. Van Pelt* (Ph.). Pennsylvania: dry gravelly soil, Betzwood, Montgomery Co., October 16, 1900, *Alexander MacElwee*, no. 2121 (Ph.); East Park, Philadelphia, September 18, 1898, *A. F. K. Krout* (Ph.); Philadelphia, *Conard* (Ph.); Williamson School, Delaware Co., September, 1896, *Alexander MacElwee, ~~Jr~~.* (Ph.); on serpentine, Goshenville, Chester Co., September 25, 1910, *E. B. Bartram*, no. 1207 (Ph.). Delaware: Centreville, New Castle Co., September, 1863, *A. Commons* (Ph.), dry soil, September 6, 1878, *A. Commons*, no. 106 (Ph.); sandy soil, Cedar Neck, Sussex Co., September 10, 1875, *A. Commons*, no. 108 (Ph.). Georgia: on the slopes and summit of Stone Mountain, De Kalb Co., altitude 1000–1686 feet, September 6–12, 1894, *John K. Small* (N. Y., C., Ph.). Mississippi: Biloxi, August 22, 1900, *S. M. Tracy*, no. 4760 (Gr.); Bayou Porto, October 14, 1897, no. 3795 (Gr.). Texas: prairies, Dallas, August 30, 1900, *G. Reverchon*, no. 1164 (Gr.); common prairie grass, covering extensive surfaces, Comanche Spring, September 1849, *F. Lindheimer*, no. 166 (Gr.), September 1849, *F. Lindheimer*, no. 1247 (Gr., Ph.); Rio Grande, without date, *Schott* (Gr.); Liano, October, 1847 [*F. Lindheimer* fide Dr. Robinson], no. 3 (Gr.). Oklahoma: Sapulpa, Creek Co., August 24, 1895, *J. W. Blankinship* (Gr.). Missouri: common, dry ground, Jackson Co., September 26, 1893, *B. F. Bush*, no. 382 (Gr.). Kansas: prairie, Riley Co., September 18, 1895, *G. B. Norton*, no. 582 (Gr.). Nebraska?: Republican Fork, 1856, *H. Engelmann* (Gr.). Iowa: Sioux City, August 29, 1896, *L. H. Pammel*, no. 107 (Gr.); without location, 1876, *M. E. Jones*, no. 5 (Gr.).

---

[1] Another specimen which I believe to be from Long Island is Long Point, October 15, 1905, *E. P. Bicknell* (N. Y.).

The distribution of var. *polyclados* is essentially that of the coastal plain along the Atlantic seaboard and inland up the Mississippi basin with its most marked development along the Atlantic seaboard from Marthas Vineyard southward where it was segregated as *A. littoralis.* A study of the type of *A. littoralis* Nash and of other specimens so determined by Mr. Nash fails to show any satisfactory combination of characters. It is true that these specimens usually show a tendency to have several nodes close together at the base of the culm and a marked tendency toward a vertical rootstock, but I believe these are ecological characters due to the sandy soil as gradations are common and similar tendencies were noted in var. *frequens.* The compression of the sheaths also seems too instable to carry weight and the glaucousness of the plant and the longer hairs at the apex of the internodes [this character was used by Nash to key out *A. littoralis*] do not couple with other characters. The flabellate character of the inflorescence seems reasonably constant and coupled with a definite geographic range, but intergrades with var. *frequens* and hence I believe is better considered a variety than a species. A single marked exception occurs linking this variety to var. *villosissimus* [one or two specimens of var. *villosissimus* are however noted as approaching var. *polyclados*]. New Jersey: Five-mile Beach, *MacElwee,* no. 2024. The following specimens, listed above approach var. *frequens* in a greater or less degree, but all show a noticeably flabellate tendency in the inflorescence. Mississippi: Bayou Porto, Tracy, no. 3795. Kansas: Riley Co., *Norton,* no. 582. Nebraska?: Republican Fork, *Englemann* and Iowa: Sioux City, *Pammel,* no. 107.

Boston, Massachusetts.

ADDITIONS TO THE FLORA OF CONNECTICUT.

Since the publication in 1910 of the Catalogue of Flowering Plants and Ferns of Connecticut,[1] a large amount of exploration has been done in the state and several previously unknown or inaccessible collections have been examined. The present article is an attempt to put the more important results of this work on record.[2] It includes reports of 88 indigenous and of 72 introduced species, varieties and named forms not included in the former publication. These have been marked, the native plants with an asterisk and the introduced plants with a dagger, in the following list.

---

[1] Bulletin no. 14 of the State Geological and Natural History Survey of Connecticut.

[2] In the case of records not here published for the first time, reference has been made in parenthesis to the original publication.

In addition there have been included a large number of new stations for the rarer species and extensions of range for those reported from restricted areas. Of such data, a considerable quantity which does not markedly modify the statements of the Catalogue has been excluded, because it seemed best to keep within reasonable limits of space. But it has been the intention to include all significant new information.

An attempt has been made to give the distribution of segregates published since 1910; but further study is likely to modify some of the conclusions here expressed.

Asplenium ebenoides R. R. Scott. On ledges of shale, Berlin and Southington (H. C. Bigelow).

Asplenium angustifolium Michx. Hartland (E. J. Winslow). Previously reported only from the trap hills of the central part of the state and from a single station in the calcareous region of the northwestern part.

Dryopteris Goldiana (Hook.) Gray. *Aspidium Goldianum* Hook. Hartland (Bissell & Weatherby), North Canaan (Bissell), Danbury (E. J. Winslow, Weatherby). Previously reported only from the triassic region of central Connecticut.

The following hybrids in the genus *Dryopteris* have been recognized as occurring in the state.

D. cristata × Goldiana. Plainville.

D. cristata × marginalis. Occasional throughout.

D. cristata × spinulosa. Manchester, South Windsor, Windsor, Plainville, Southington, Plymouth.

D. cristata, var. Clintoniana × Goldiana. Plainville, Hartland.

D. cristata, var. Clintoniana × marginalis. Manchester, Cromwell, Plainville.

D. cristata, var. Clintoniana × spinulosa. Manchester, Windsor, Plainville, Southington, Cornwall.

D. cristata, var. Clintoniana × spinulosa, var. intermedia. Manchester, Windsor, Plainville, Southington.

D. Goldiana × marginalis. Southington, Plainville, Hartland.

D. Goldiana × spinulosa. Plainville.

D. marginalis × spinulosa. South Windsor, Berlin, Plainville.

D. marginalis × spinulosa, var. intermedia. Berlin, Manchester, Bristol, North Canaan.

* Ophioglossum vulgatum L., f. pseudopodum Blake. Rhodora, xv. 87 (1913). Manchester (A. W. Driggs).

Equisetum pratense Ehrh. Salisbury (Mrs. C. S. Phelps, Rhodora, xvi. 96). Not previously reported from Litchfield Co.

* Lycopodium annotinum L., var. acrifolium Fernald. Rhodora, xvii. 124 (1915). Rare. Damp cold woods: Winchester (Bissell), Norfolk (J. H. Barbour), Colebrook (M. L. Fernald).

This variety, characterized by its firm, almost entire leaves, occurs as above. The other stations cited in the Catalogue are of true *L. annotinum*.

L. clavatum, var. megastachyon Fernald & Bissell. Rhodora, xii. 53 (1910). *L. clavatum*, var. *monostachyon* of the Catalogue. Huntington (Eames). Not previously reported from Fairfield Co.

Juniperus communis L. Columbia, Southington and Hartland (Bissell & Weatherby), Mansfield (A. F. Greene), Guilford (W. R. Dudley). In the Catalogue reported only from Norwich.

Sparganium americanum Nutt. Plymouth (A. E. Blewitt). Occasional throughout the southwestern part of the state. In the Catalogue reported only from eastern Connecticut.

S. lucidum Fernald & Eames. Border of Alexander Pond, Killingly (Harger). Previously reported only from Hartford.

Potamogeton pulcher Tuckerm. Local in ponds and slow streams near the coast.

P. angustifolius Berchtold & Presl. In the Housatonic River at Salisbury and Canaan (Eames & C. C. Godfrey), and at Kent and New Milford (Eames). In the Catalogue reported only from Oxford.

* P. confervoides Reichenb. Rare. In ponds: Voluntown (Harger, G. E. Nichols).

Ruppia maritima L., var. rostrata Agardh. Few collections of *Ruppia* with mature fruit have been examined, but most of the Connecticut material appears to be of this variety.

* R. maritima L., var. subcapitata Fernald & Wiegand. Rhodora, xvi. 126 (1914). Madison (F. W. Hall, 1874; specimen in Herb. Conn. Agr. Exp. Sta.).

Scheuchzeria palustris L. Voluntown (Harger). Not previously reported east of the Connecticut valley.

Sagittaria Engelmanniana J. G. Smith. Thompson (Weatherby). Previously reported only from southern New London Co.

Elodea canadensis Michx. The typical form of this plant, with ovate leaves, is occasional or locally abundant through the western part of the state. Narrow-leaved plants are rather common throughout the state and seem to fall into two series, of which the more lax and narrower-leaved extreme is probably *Philotria angustifolia* (Muhl.) Britton.

* Paspalum pubescens Muhl. Rare. Sandy soil in the flood-plain of the Connecticut River, Hartford (Bissell & Weatherby).

Panicum virgatum L. The form "with two to several staminate or abortive florets to a spikelet," said to be caused by a smut (Contr. Nat. Herb., xv. 89), is often observed and sometimes abundant in certain localities (Eames).

* P. virgatum L., var. cubense Griseb. Groton (Graves). A somewhat intermediate form, referred to this variety by Hitchcock and Chase (Contr. Nat. Herb. xv. 92).

P. longifolium Torr. Killingworth (Weatherby).

P. spretum Schultes. Killingworth (Weatherby), Woodstock (Harger), South Windsor (Weatherby & C. W. Vibert). Extensions of range north and west.

P. oricola Hitchc. & Chase. Locally abundant on the coast in Fairfield Co. (Eames). In the Catalogue definitely reported only from Waterford.

P. albemarlense Ashe. Southington (Andrews). In the Catalogue reported only from Waterford.

P. scoparioides Ashe. Southbury (Harger, Rhodora, xv. 66). In the Catalogue reported only from Southington.

P. Commonsianum Ashe. Sand-plains, North Haven (Andrews ex Hitchcock & Chase, Contr. Nat. Herb., xv. 92).

P. xanthophysum Gray. Sandy soil, North Canaan (A. E. Blewitt). Rocky summit, Salisbury (W. R. Dudley; specimen in Herb. Yale University). Previously reported only from north-central Connecticut.

* P. aculeatum Hitchc. & Chase. Alluvial soil, Stafford (Bissell & R. W. Woodward).

* Echinochloa muricata (Michx.) Fernald. Rhodora, xvii. 105 (1915). Rare. Pond-margins and fields: Pomfret (Weatherby), Berlin (J. N. Bishop, Rhodora, l. c.), Killingworth (F. W. Hall; specimen in Herb. Yale University), Bridgeport (Eames, Rhodora, l. c.).

* Setaria imberbis R. & S. Rare. Wet fields: Branford (Harger), Fairfield (Eames).

† Zizania palustris L. Indian Rice. Rare. Streams flowing into Lake Congamond, Suffield (Eames & C. C. Godfrey), where it has spread from plants introduced into the lake many years ago.

* LEERSIA ORYZOIDES (L.) Sw., forma CLANDESTINA Eames. RHODORA, xviii. 239 (1916). Rare. Stratford (Eames, l. c.). Distinguished from the typical form by having the terminal as well as the lateral panicles included in the sheaths.

HIEROCHLOË ODORATA (L.) Wahlenb. A form with very large spreading panicles occurs at Fairfield (Eames).

* MILIUM EFFUSUM L. Millet Grass. Rare. Rich, rocky woods, Hartland (Bissell & Weatherby).

ORYZOPSIS PUNGENS (Torr.) Hitchc. Suffield and Simsbury (Weatherby), Morris (J. P. Brace about 1820; specimen in Herb. Williams College. Am. Journ. Sci. Ser. 1, iv. 73; RHODORA, xvi. 90). In the Catalogue not reported from west of the Connecticut River.

In the Catalogue the ranges of three species of *Muhlenbergia* of the *mexicana* group were necessarily left somewhat indefinite because of lack of data. It is now possible to make a more definite statement, as follows:—

MUHLENBERGIA SYLVATICA Torr. Occasional. Woods, borders of thickets and banks of streams.

M. FOLIOSA (R. & S.) Trin. Open bogs, wet woods, or rarely in drier ground. Frequent in the northern part of the state, becoming occasional near the coast.

The awned form has been collected at Guilford (W. R. Dudley, 1872; specimen in Herb. Yale University).

M. MEXICANA (L.) Trin. Fields, dooryards, roadsides and waste places, preferring moist, rich soil: Scotland (Weatherby), Litchfield (J. P. Brace about 1820; specimen in Herb. Williams College: RHODORA, xvi. 90), New Milford (Eames) and frequent or locally common in the central and southern parts of the state. Not reported from Tolland Co.

The awned form occurs with the typical form, but less commonly.

These three species, though offering, as defined by Prof. Scribner, a much more natural classification than the old one based on the presence or absence of the awn, are closely related, variable and not always easy to distinguish clearly. As between *M. mexicana* and the other two, a serviceable and constant character is found in the culm, which in the former, is glabrous throughout and in the two latter, minutely puberulent below the nodes.— C. A. WEATHERBY.

M. CAPILLARIS (Lam.) Trin. Cheshire (A. E. Blewitt). Otherwise known only from New Haven.

Sporobolus neglectus Nash. Kent (Weatherby).

S. uniflorus (Muhl.) Scribn. & Merr. Fairfield and Easton (Eames). In the Catalogue not reported from Fairfield Co.

(*To be continued.*)

E. B. Harger,
C. B. Graves,
E. H. Eames,
C. H. Bissell,
L. Andrews,
C. A. Weatherby.

Carex gynocrates in Pennsylvania.— In Mr. Long's article on the occurrence of *Carex novae-angliae* in Pennsylvania he speaks of the fact that numerous other Canadian plants are being found in the upland region of the state, and it may be of interest to Pennsylvania botanists to know of an actual specimen of *Carex gynocrates* from Pennsylvania. In Porter's *Flora* the species is included (as *C. Redowskyana*) but without definite citation of locality or county. In the Gray Herbarium there is an excellent specimen which was collected by Goldie at Pittsburg and received from Hooker. This station is presumably now obliterated, but it is so near the stations in the upland region of central and western New York where *C. gynocrates* has long been known that search in the Alleghanian region of Pennsylvania may yet reveal the plant. In Newfoundland, southeastern Canada, and northern New England and New York the plant is found exclusively in calcareous bogs and swamps: in northern Maine, almost exclusively in arbor-vitae swamps where it forms close turf on knolls or decaying logs; but in Newfoundland, where arbor-vitae is unknown, the species is characteristic of the more calcareous swamps which are wooded with *Picea mariana* and *Larix laricina.*— M. L. Fernald.

Oenothera pumila L. var. **rectipilis**, var. nov.— Formae typicae omnino similis, pilis caulis foliorumque recte patentibus exceptis.— New Brunswick: dryish rocky ground, Petit Rocher, Gloucester Co., 21 Aug. 1913, *Blake* 5513 (type in Gray Herb.); recent clearing, Bathurst, 25 July 1902, *Williams & Fernald.* Ontario: Queenston Heights, 6 July 1901, *J. Macoun*, 44,466 in part. New York (?): Niagara Falls, *Asa Gray.*

In our current manuals *Oenothera pumila* is somewhat ambiguously described as "puberulent" or "sometimes finely puberulent." The extensive series in the Gray Herbarium and the herbarium of the New England Botanical Club, with the exception of the above cited specimens, is invariably strigillose or puberulous with appressed or sometimes merely incurved hairs, generally dense but sometimes sparse in age (although never quite lacking), and is at once distinguishable from var. *rectipilis*. The latter is probably the only form occurring on the southern shore of the Baie des Chaleurs in New Brunswick; the two collections from that region are the only specimens of either form of the species from New Brunswick which I have examined. At the Ontario locality var. *rectipilis* apparently occurs with the typical form, since one of the four specimens representing *Macoun* 44,466 in the Gray Herbarium is clearly referable to true *O. pumila*. In all features but pubescence var. *rectipilis* seems quite indistinguishable from ordinary *O. pumila* L.— S. F. Blake, Stoughton, Massachusetts.

A Diagnostic Character of Nuphar microphyllum.— The writer has often noticed in collecting *Nuphar microphyllum*[1] that the fruit is quite naked at base, that is, without the rings of partly decayed filaments which abound at the base of the fruit in all our other species of the genus. This character, which apparently is not recorded in the descriptions of the species, is of great diagnostic value, especially in separating *N. microphyllum* from small forms of *N. rubrodiscum*. The character, although not mentioned in the description, is well brought out in the photograph of fruit of *N. microphyllum* in Miller & Standley's paper on "The North American Species of Nymphaea."[2] — M. L. Fernald, Gray Herbarium.

Taraxacum ceratophorum in New England.— On 27 July, 1909, a single plant of a *Taraxacum* clearly differing in appearance from the familiar New England species was collected by the writer in a moist gully (at an elevation of about 4500 feet) in King's Ravine, Mt. Adams,

---

[1] Nuphar **microphyllum** (Pers.), n. comb. *Nymphaea microphylla* Pers. Syn. ii. 63 (1807). *Nymphaea lutea, β Kalmiana* Michx. Fl. Bor.-Am. i. 311 (1803). *Nuphar Kalmiana* Ait. Hort. Kew. ed. 2. iii. 295 (1811).

[2] Contrib. U. S. Nat. Herb. xvi. pt. 3. t. 35.

New Hampshire. A study of the plant made at the Gray Herbarium not long after its collection seemed to indicate its identity with *T. ceratophorum* (Ledeb.) DC., but since the specimen was barely in flower it seemed desirable to wait until fruit might be obtained. In spite of several searches made since that time no more plants have been discovered, but recently a second and more careful comparison of the same specimen has been made, with the kind help of Professor Fernald, and there seems no room for doubt that the former identification was correct. *Taraxacum ceratophorum* is represented in the Gray Herbarium by specimens from similar situations in the Shickshock Mountains and from the cliffs at Bic, Quebec, as well as from further west. The station at Bic, which is about 250 miles distant, is the nearest yet known to that on Mt. Adams. It is to be hoped that other gullies on the Presidential Range may reveal the same species, which forms an interesting addition to the slowly increasing alpine flora of the White Mountains. The specimen here discussed has been deposited in the herbarium of the New England Botanical Club.— Arthur Stanley Pease, Cambridge, Massachusetts.

Vol. 19, no. 221, including pages 77 to 92, was issued 1 May, 1917.

IMPORTANT NEW BOTANICAL BOOKS

COULTER'S PLANT LIFE AND PLANT USES	$1.20
By **John Gaylord Coulter, Ph. D.**, Critic Teacher of Biology, University High School, Normal, Illinois.	
Edition with Cowles and Coulter's Spring Flora	1.50
COULTER'S BOTANICAL NOTEBOOK AND LABORATORY MANUAL	.36
By **John Gaylord Coulter, Ph. D.**	
With loose leaf binder	.72
COWLES AND COULTER'S SPRING FLORA	.60
By **Henry C. Cowles, Ph. D.**, Associate Professor of Plant Ecology, University of Chicago, and **John Gaylord Coulter, Ph. D.**	
Edition with Andrews's Practical Botany	1.50

DESCRIPTIVE CIRCULARS SENT ON REQUEST

AMERICAN BOOK COMPANY

New York Cincinnati Chicago Boston

HOME GROWN LILIES.

Fresh from Beds. Wild Flowers, Hardy plants of all kinds.
Send for catalogue

F. H. HORSFORD, Charlotte, Vt.

FOR the sake of securing abundant and good material for illustrating a local Flora of Quebec, the undersigned offers to exchange sets of Quebec Plants, authentically determined (Ottawa River Valley, St. Lawrence River Valley, Laurentian Mountains) for plants of the Northeastern States. Sets of about 400 sheets; *Botrychium*, *Carex*, *Antennaria* particularly wanted.

BRO. VICTORIN,
Longueuil College, Quebec, Canada.

Mounting Papers, Driers, Genus Covers, Collecting Cases, Plant Presses

BOTANICAL CATALOG 91. DO YOU HAVE IT?

CAMBRIDGE BOTANICAL SUPPLY COMPANY

Laboratory . . . . WAVERLEY, MASS. . . . . *Equipment*

(Mention Rhodora)